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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/629,892	07/31/2000	Louis Luneau	14792-IUS-JA/AA/mb	5090

20988 7590 10/23/2003
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EXAMINER

AHN, SAM K

ART UNIT PAPER NUMBER

2634

DATE MAILED: 10/23/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/629,892

Applicant(s)

LUNEAU, LOUIS

Examiner

Sam K Ahn

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,7 and 14-19 is/are rejected.
- 7) ☒ Claim(s) 1,2,4-6 and 8-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1-13 and 19 are objected to because of the following informalities:
 - a. In claim 1, line 11, delete "said tunable down converter" and insert "said tunable down converter unit".
 - b. In claims 2, 8 and 9, line 2, 1 and 2, respectively, delete "said RF units" and insert "said RF receiver units".
 - c. Claims 3-7, 10-13 and 19 directly or indirectly depend on claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3, 7, 18 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - a. Claim 3 recites the limitation "said selection signal" in line 6. There is insufficient antecedent basis for this limitation in the claim.
 - b. In claim 18, the recited "... a management unit and comprising the steps of" is vague and indefinite.

- c. Claim 19 recites the limitation "the central processing unit" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.
- d. Claim 7 directly depends on claim 3.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 14-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Bexten ('133).

Regarding claim 14, Bexten discloses a method for receiving a wireless communication with a device (see Fig.5) which comprises a plurality of RF receiver units (see Fig.5), at least one tunable down converter unit (520), at least one tunable filter (630 in Fig.6, and note col.7, lines 3-20), a switch (515) comprising the steps of receiving a wireless signal from an antenna (205) and outputting an IF broadband signal from the output of (505). Further, switching in order to connect one of said RF receiver units to one of said tunable down converter units (520), downconverting the IF broadband signal to provide a raw I and Q signals (see Fig.6) and filtering (in 630 in Fig.6) the raw I and Q signal to provide I and Q signals.

Regarding claim 15, Bexten teaches all subject matter claimed, as applied to claim 14. Bexten further teaches digitizing said IF broadband signal by an ADC unit (220 in Fig.5) before switching.

Regarding claims 16 and 17, Bexten teaches all subject matter claimed, as applied to claim 14 or 15. Bexten further teaches the step of switching said switch directed by a management unit. (Resource Manager in Fig.5, note col.6, lines 53-62)

Allowable Subject Matter

4. Claims 1-2, 4-6 and 8-13 would be allowable if rewritten or amended to overcome the claim objections set forth in this Office action.
5. Claims 18 and 19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
6. Claims 3 and 7 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.
7. The following is a statement of reasons for the indication of allowable subject matter:

Present application discloses an apparatus and method for receiving a wireless communication signal comprising plurality of receivers, down converter units, filters and a switch for connecting received signals to down converter units. It further discloses a

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management unit upon receiving a request for a specific frequency band, sets the parameters of the filter, down converter units and the switch. Closest prior art, Bexten, teaches in the same field of endeavor wideband digital architecture comprising all the common elements disclosed by the present application. However, Bexten does not teach the combination of elements recited above and the management unit setting the parameters for the filter, down converter units and the switch upon reception of a request. Therefore, prior art does not teach all the limitation claimed.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Noneman et al. ('213), Antonio et al. ('817), Noneman et al. ('876), Lurey et al. ('130), Rottinghaus et al. ('813), Rader et al. ('099) and Tsui et al. ('921) teach system comprising plurality of receivers receiving transmitted signals comprising elements for proper reception.

Abbey ('354) and Kelley et al. ('636) teach system supporting multi-mode, multi-band and multi-user wherein each receiver is designed to receive different frequency band.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Sam Ahn** whose telephone number is **(703) 305-0754**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Stephen Chin**, can be reached at **(703) 305-4714**.

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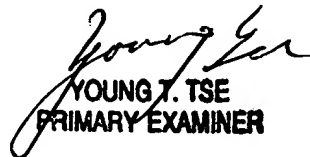
or faxed to:

(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Sam K. Ahn
10/14/03


YOUNG T. TSE
PRIMARY EXAMINER